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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,274	05/31/2001	Allen He	US018082 (PHIL 2279000)	1500

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EXAMINER

KIM, KEVIN

ART UNIT PAPER NUMBER

2634

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,274

Applicant(s)

HE, ALLEN

Examiner

Kevin Y Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.135(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-27, 34 and 35 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-8, 10-12, 28, 29, 31 and 33 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 9, 13, 30 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05-31-2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The subject matter claimed is drawn to a bit stream encoded in a particular way, therefore being a data structure.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,4,6-8,10-12,29,31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by TR45 (submitted by applicant as part of IDS)

Consider **claims 1 and 2**. TR45 document shows an encoder for encoding a first bit stream, comprising,

means (see Turbo Interleaver) for generating a second bit stream (see the output of the Interleaver) from the first bit stream (N_{turbo} bits). The second stream has one or more different corresponding bit values than the first bit stream because, when interleaved, bits in the original sequence are interchanged by other bits in the sequence, and

means for encoding the second bit stream, see Constituent Encoder 2.

Consider **claims 4 and 29**. TR45 document shows an encoder for encoding a first bit stream, comprising,

means (see Turbo Interleaver) for generating a second bit stream (see the output of the Interleaver) from the first bit stream (N_{turbo} bits). The second stream has one or more different corresponding bit values than the first bit stream because, when interleaved, bits in the original sequence are replaced by other bits in the sequence,

means for generating a first bit (Y_0) and a second bit (Y_1) for each bit (X) in the first bit stream, see Constituent Encoder 1; and

means for generating a third bit (Y'_0) and a fourth bit (Y'_1) for each bit (X') in the second bit stream Constituent Encoder 2.

Consider **claim 6,7,8,11,31 and 33**. TR45 document shows an encoder for encoding a first bit stream, comprising,

means for generating a first encoder first bit (Y_0) and a first encoder second bit (Y_1) for each bit (X) in the first bit stream, see Constituent Encoder 1,

means (see Turbo Interleaver) for generating a second bit stream (see the output of the Interleaver) from the first bit stream (N_{turbo} bits). The second stream has one or more different corresponding bit values than the first bit stream because, when interleaved, bits in the original sequence are replaced by other bits in the sequence,

means for generating a second encoder first bit (Y'_0) and a second encoder second bit (Y'_1) for each bit (X') in the second bit stream, Constituent Encoder 2

means for multiplexing the first stream, the first encoder first bit, the first encoder second bit, the second encoder first bit, the second encoder second bit, see Symbol Puncture and Repetition and page 2-98, lines 14-15.

Regarding claim 10 and 12, the Turbo Interleaver interleaves the first bit stream, thus generating "a reordered bit stream."

Allowable Subject Matter

4. Claims 3, 5, 9, 13, 30 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 14-27,34 and 35 are allowed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kennedy et al (US 6,771,705) and Bingeman et al (US 6,298,463) each discloses an encoder encoding a bit stream derived from another bit stream.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 703-305-4082. The examiner can normally be reached on 8AM --5PM M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kvk

Chieh M. Fan

CHIEH M. FAN
PRIMARY EXAMINER